

METHODS FOR MANAGING BANDWIDTH
IN A PACKET-BASED COMMUNICATION SYSTEM
INCORPORATING A RESERVATION PROXY FUNCTION

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ABSTRACT OF THE DISCLOSURE

Call control methods are disclosed for a multi-zone, packet-based communication system using certain host devices, termed reservation proxy elements, or RPEs to establish reservations of bandwidth for calls on behalf of other participating hosts. RPEs (132-138) receive and join a multicast group address to be used for a call, and exchange RSVP signaling messages across one or more inter-zone, packet network links (148, 150, 152, 154) to reserve communication resources for the call on behalf of participating devices in various zones. The RPEs receive the multicast group address from zone controller(s) (124-130) having received a call request for a talkgroup call. The zone controllers identify the multicast group address for the call and determine locations of participating devices and RPEs for the call. Upon the RPEs reserving communication resources for the call and communicating the reservation to the zone controller(s), the zone controller(s) grant the call and participating devices join the multicast group to participate in the call. The multicast group address used for the RSVP reservation is the same address used for the actual call.

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